

Kosovar Vaccination Campaign — Continued

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7. McBurney R, Ogden K, Silverman P, Maxhuni B. Nutritional anthropometric, child health and food security survey, Kosovo, FR Yugoslavia. Pristina, Yugoslavia: Action Against Hunger, Mercy Corps International, and United Nations Children's Fund, 1999.

*Public Health Dispatch***Outbreak of *Escherichia coli* O157:H7 and *Campylobacter* Among Attendees of the Washington County Fair — New York, 1999**

On September 3, 1999, the New York State Department of Health (NYSDOH) received reports of at least 10 children hospitalized with bloody diarrhea or *Escherichia coli* O157:H7 infection in counties near Albany, New York. All of the children had attended the Washington County Fair, which was held August 23–29, 1999; approximately 108,000 persons attended the fair during that week. Subsequently, fair attendees infected with *Campylobacter jejuni* also were identified. An ongoing investigation includes heightened case-finding efforts, epidemiologic and laboratory studies, and an environmental investigation of the Washington County fairgrounds. This report presents the preliminary findings implicating contaminated well water.

To identify additional fair attendees with diarrhea, the NYSDOH issued press releases, conducted daily press briefings, and contacted emergency departments, laboratories, and infection-control practitioners by fax and telephone. Laboratories were asked to culture all diarrheal stool specimens for *E. coli* O157:H7 and subsequently for *Campylobacter* spp.

As of September 15, 921 persons reported diarrhea after attending the Washington County Fair. Stool cultures yielded *E. coli* O157:H7 from 116 persons; 13 of these persons were co-infected with *C. jejuni*. Stool cultures from 32 additional persons yielded only *Campylobacter*. Sixty-five persons have been hospitalized; 11 children have developed hemolytic uremic syndrome (HUS); and two persons died: a 3-year-old girl from HUS and a 79-year-old man from HUS/thrombotic thrombocytopenic purpura. Cases of diarrheal illness among fair attendees have been reported from 14 New York counties and four states.

An environmental investigation of the fairgrounds on September 3 determined that much of the fair was supplied with chlorinated water. However, in at least one area of the fair, a shallow well supplied unchlorinated water to several food vendors who used the water to make beverages and ice. Initial cultures of water from this well yielded high levels of coliforms and *E. coli*.

A case-control study was conducted to determine risk factors for infection. Case-patients were residents of Washington County who developed diarrhea after attending the fair and in whom stool cultures yielded *E. coli* O157:H7 or *Campylobacter*. Controls were residents of Washington County randomly selected from the telephone directory who had attended the fair and were frequency-matched by age group. Thirty-two case-patients and 84 controls were enrolled. Analysis was limited to those attending the fair at least once during the final 4 days of the fair because all ill persons, including those attending only once, attended during that period. Drinking water or

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beverages made with water from the suspect well was associated with illness. Twenty-six (81%) of 32 case-patients and nine (16%) of 57 controls had consumed water from this well during the final 4 days of the fair (matched odds ratio=23.3; 95% confidence interval=6.3–86.9). When controlled for water consumption, other exposures, such as eating food at the fair and contact with manure, were not significantly associated with illness.

On September 9, the New York State Public Health Laboratory, the Wadsworth Center, used five different polymerase chain reaction assays to demonstrate the presence of *E. coli* O157:H7 DNA in water from the implicated well and subsequently isolated the organism from water samples from the well and the water distribution system. Pulsed-field gel electrophoresis testing by the Wadsworth Center showed that the DNA "fingerprints" of *E. coli* O157:H7 isolates from the well, the water distribution system, and most patients were similar. Water sampling for *Campylobacter* spp. is ongoing.

To prevent secondary transmission of enteric infection, letters were sent to schools and day care centers emphasizing the need to exclude symptomatic children and practice careful handwashing. Letters also were sent to nursing homes and hospitals with recommendations regarding employees and residents with diarrhea. Information to the public about the outbreak also focused on how to prevent secondary infections. On September 13, the state health commissioner issued an order requiring county fairgrounds to use disinfected water when hosting public events; the commissioner also is reviewing laws and regulations applicable to fairs.

Reported by: County health depts in the Capital District; New York state outbreak investigation team; A Novello, MD, Commissioner, New York State Dept of Health. Foodborne and Diarrheal Diseases Br, Div of Bacterial and Mycotic Diseases, National Center for Infectious Diseases; and EIS officers, CDC.

Notice to Readers

Final 1998 Reports of Notifiable Diseases

The notifiable diseases tables on pages 815–822 summarize final data for 1998. These data, final as of August 13, 1999, will be published in more detail in the *Summary of Notifiable Diseases, United States, 1998* (1).

Because no cases of anthrax, western equine encephalitis, or yellow fever were reported in the United States during 1998, these nationally notifiable diseases do not appear in these tables. Population estimates for the states are from the July 1, 1998, estimates by the U.S. Department of Commerce, Economics and Statistics Administration, Bureau of the Census, Population Division, Population Distribution Branch, Internet release ST-98-1, December 31, 1998 (2). Population numbers for territories are 1997 estimates from Bureau of the Census press releases CB98-54 (3) and CB98-80 (4).

References

1. CDC. Summary of notifiable diseases, United States, 1998. MMWR 1999;48(no. 53)(in press).
2. Bureau of the Census. ST-98-1. State population estimates and demographic components of population change: July 1, 1997 to July 1, 1998. Available at <http://www.census.gov/population/estimates/state/st-98-1.txt>. Accessed September 13, 1999.